

- Two companies that have major cable operations (Time-Warner and Gaylord).

All the companies contained in this Value Line group are identified on the first three pages of Attachment 6.

The second recreation group defined in Attachment 6 excludes Time-Warner and Gaylord as do the two subsequently defined subgroups. (The travel subgroup excludes the motor boat and motorcycle manufacturers.) The first recreation subgroup (the third group defined in Attachment 6) (i.e., it includes home and local leisure companies and vacation/resort companies).<sup>61</sup> The second recreation subgroup (the fourth grouping is defined in Attachment 6) focuses on home and local leisure services and products and excludes resorts and cruises. The first subgroup (movie, local leisure, and vacation/resort services) constitutes our preferred choice to represent the entertainment companies that are most closely competitive with cable television for the consumers' entertainment dollar. The second subgroup is defined as the alternate choice for the recreation group. It includes all the companies in the recreation group except Time-Warner and Gaylord. Attachment 6 provides financial statistics for the four recreation company groupings.

#### **9.1. Estimates of the Cost of Capital for the Cable Systems**

Attachment 7 summarizes the results obtained by analyzing all the comparable groups and subgroups. This attachment also presents the results for the five cable television companies (see Attachment 2). The cable television companies have the highest adjusted beta. The adjusted beta for the S&P 70 comparable group is closest to that of the cable companies.

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<sup>61</sup>A book publisher also is included within this group.

Attachment 7 also presents a summary of the financial results for two sets of comparable groups: (1) the preferred set; and (2) the alternate set. The S&P 70 group and the broadcast group are included in the preferred and alternate sets. In the preferred set, the telecommunications group is made up of the 7 RBHCs and the five large independents or Telco (12). Some of the smaller telecommunications companies have quite different characteristics than the large companies. In the alternate set, all the Value Line telecommunications companies are included in the telecommunications group. The recreation industry companies comprise the final group. In the preferred set, the recreation group consists of home and local leisure products and services plus vacation/resort products and services (Time-Warner and Gaylord are excluded due to their substantial cable telecommunications activities). This subset of the Value Line recreation industries competes most directly with the cable systems. The alternate set defines the recreation group as all companies included by Value Line except Time-Warner and Gaylord.

The following two tables present estimates of the after-tax cost of common equity and the pre-tax overall cost of capital, respectively, for cable television systems derived from the data for the comparable groups. In each table, the results generated using both the preferred and alternate sets are presented. To put these two sets of results on a comparable basis, the after-tax cost of common equity estimates must be converted to a pre-tax overall cost of capital estimate. To do this, debt cost rate estimates are needed. The average 1992 debt cost rates for the comparable groups in the two sets are used (see the third table below).

The next table presents a comparison of the results. The pre-tax overall cost of capital generated using the conventional cost of common equity approach is lower for both the preferred and alternate sets. The last table calculates an "acceptable" range of estimates for the pre-tax overall cost of capital generated by the two methods for the two sets of comparable groups. The range is defined as plus and minus one standard deviation around the recommended value.

The two analytical approaches applied to the two sets of comparable groups produce a fairly wide range of pre-tax overall cost of capital estimates. If the two results are combined (averaged), the following composite estimate of the pre-tax overall cost of common equity for cable systems is obtained:

**PRE-TAX OVERALL COST OF CAPITAL  
FOR CABLE TELEVISION SYSTEMS**

<u>Low</u>	<u>Recommended</u>	<u>High</u>
17.3	18.9	20.5

The above estimates are based, in part, on average debt cost rates for 1992. If the average debt cost rate for the last several months was used instead, these calculations would yield somewhat lower results.<sup>62</sup>

In summary, the recommended approach for estimating the pre-tax overall cost of cable for cable television systems involves:

1. Defining the four types of comparable groups.
  - a. Subset of S&P Industrials that have Value Line risk measures similar to those Value Line produces for the cable television companies.
  - b. The Broadcast Group which includes all companies classified by Value Line to be in the Broadcast industry.
  - c. The two telecommunications groups are:
    - 1) Preferred: The seven RBHCs and the five major independents.

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<sup>62</sup>Such an update would reduce the pre-tax overall capital cost rate recommendations presented above by 25 to 50 basis points.

- 2) Alternate: All companies classified by Value Line to be in the telecommunications industry.
- d. The recreation/leisure groupings:
  - 1) Preferred: The home and local leisure companies and the resort/vacation companies (i.e., entertainment companies) taken from the companies that Value Line classifies as being in the Recreation Industry excluding Time-Warner and Gaylord due to their extensive cable television businesses.
  - 2) Alternate: All the companies that Value Line classifies as being in the Recreation Industry again except Time-Warner and Gaylord.
2. Calculate both the pre-tax overall cost of capital and the after-tax cost of common equity for each of the above groups (Preferred and Alternate) using the comparables method.
  - a. Result is the simple arithmetic average of historical and forecast data as published by Value Line.
  - b. Historical data are a five-year average ending in the most recently completed year (e.g., 1988 through 1992).
  - c. Forecast data are for a five-year ahead horizon is published by Value Line.

3. Two key assumptions are:
  - a. A 50/50 capital structure.
  - b. A 40 percent effective business income tax rate.<sup>63</sup>
4. Four complete sets of estimates are calculated for the pre-tax overall cost of capital for cable television systems based on:
  - a. The preferred group using after-tax cost of common equity estimates generated by the comparables analysis .
  - b. The alternate group using the after-tax cost of common equity estimate generated by the comparables analysis.
  - c. The preferred group using the pre-tax overall cost of capital generated by the comparables analysis.
  - d. The alternate group using the pre-tax overall cost of capital generated by the comparables analysis.
5. For each of the four sets of estimates, the following will be calculated.
  - a. The average overall pre-tax cost of capital.
  - b. The standard deviation of the pre-tax overall cost of capital.<sup>64</sup>

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<sup>63</sup>This should be adjusted if federal or average state/local rates are changed.

<sup>64</sup>Alternatively, when the after-tax cost of common equity is estimated using the comparable approach, the standard deviation for this cost estimate can be derived instead.

- c. The lower end of the acceptable range defined to be the average less one standard deviation.
  - d. The upper end of the acceptable range defined to be the average plus one standard deviation.
5. The recommended pre-tax overall cost of capital for the cable television systems and the acceptable range around this recommended value are calculated as the average of the four sets of estimates produced using the two methods applied to the two groupings (Preferred or Alternate).

**HISTORICAL AND FORECAST AFTER-TAX RATE OF RETURN ON EQUITY  
FOR THE PREFERRED COMPARABLE GROUP SET**

<u>Group List</u>	<u>Five-Year Historical Average</u>	<u>Five-Year Forecast</u>	<u>Average</u>
S&P 70	14.50	17.50	16.00
Telco (12)	13.90	16.80	15.35
Broadcast	18.30	17.60	17.95
Leisure/Vacation	14.70	19.00	16.85
Average	15.35	17.73	16.54
Standard Deviation	1.73	0.80	0.97

**HISTORICAL AND FORECAST AFTER-TAX RATE OF RETURN ON EQUITY  
FOR THE ALTERNATE COMPARABLE GROUP SET**

<u>Group List</u>	<u>Five-Year Historical Average</u>	<u>Five-Year Forecast</u>	<u>Average</u>
S&P 70	14.50	17.50	16.00
Telco (All)	12.50	16.50	14.50
Broadcast	18.30	17.60	17.95
Recreation-2	13.00	17.90	15.45
Average	14.58	17.38	15.98
Standard Deviation	2.27	0.53	1.26

**HISTORICAL AND FORECAST PRE-TAX OVERALL RATE OF RETURN  
FOR THE PREFERRED COMPARABLE GROUP SET**

<u>Group List</u>	<u>Five-Year Historical Average</u>	<u>Five-Year Forecast</u>	<u>Average</u>
S&P 70	19.20	23.10	21.15
Telco (12)	15.10	17.30	16.20
Broadcast	17.80	22.50	20.15
Leisure/Vacation	23.40	20.90	22.15
Average	18.88	20.95	19.91
Standard Deviation	3.00	2.26	2.26

**HISTORICAL AND FORECAST PRE-TAX OVERALL RATE OF RETURN  
FOR THE ALTERNATE COMPARABLE GROUP SET**

<u>Group List</u>	<u>Five-Year Historical Average</u>	<u>Five-Year Forecast</u>	<u>Average</u>
S&P 70	19.20	23.10	21.15
Telco (All)	14.30	16.60	15.45
Broadcast	17.80	22.50	20.15
Recreation-2	21.20	20.90	21.05
Average	18.13	20.78	19.45
Standard Deviation	2.52	2.54	2.34

**AVERAGE 1992 DEBT COST FOR  
THE TWO SETS OF COMPARABLE GROUPS**

<u>Group List</u>	<u>Preferred Group</u>	<u>Alternate Group</u>
S&P 70	9.5	9.5
Broadcast	10.0	10.0
Telco	8.1	8.2
Recreation	<u>8.9</u>	<u>10.5</u>
Average	9.1	9.5

## ESTIMATES OF THE COST OF CAPITAL FOR CABLE TELEVISION SYSTEMS

	Conventional Approach			Pre-Tax Overall Approach
<u>Group</u>	<u>After-Tax Cost of Common Equity</u>	<u>1992 Debt Cost for Group</u>	<u>Pre-Tax Cost of Capital<sup>1</sup></u>	<u>Pre-Tax Cost of Capital</u>
Preferred	16.54	9.1	18.33	19.91
Alternative	15.98	9.5	18.07	19.45

<sup>1</sup> Calculated assuming a 50 percent debt/50 percent equity capital structure and a 40 percent corporate tax rate.

## RANGE OF PRE-TAX OVERALL COST OF CAPITAL ESTIMATES FOR CABLE TELEVISION SYSTEMS

	Results Generated Using Cost of Common Approach			Results Generated Using Overall Cost of Capital Method		
<u>Group</u>	<u>Low</u>	<u>Recommend</u>	<u>High</u>	<u>Low</u>	<u>Recommend</u>	<u>High</u>
Preferred	17.5	18.3	19.1	17.7	19.9	22.2
Alternate	17.0	18.1	19.1	17.1	19.4	21.8

## **10. Service Rate (Price) Adjustments After Their Initial Determination**

It is quite possible that the rate based rate of return analysis will justify rates above their current levels. The objective of the initial round of cost-based rate determination analysis is only to determine if rates can stay where they are or must be rolled back. However, for systems where current rates ultimately will have to be increased to provide the required return, a mechanism will have to be established to allow service prices (rates) to be increased at a sufficient rate to generate the required revenues over a reasonable timeframe.

This issue need not be addressed at this time. Instead, it can be addressed after the initial rates are set. Given the very large number of issues that must be addressed now, this issue should logically be addressed later. Nonetheless, it is necessary is that the Commission recognize that a rate adjustment scheme must be developed to allow full recovery and earnings over a reasonable horizon (e.g., 10 years). Possibly, the best solution might be for systems to propose adjustment mechanisms for FCC approval and not try to develop a set of rules.

## **11. Conclusions**

The FCC proposal to use the original cost of tangible assets as the measure of value for rate base for cable television is inappropriate for a variety of reasons:

1. Traditional public utility rate regulation has evolved over a near 100-year period. At the outset and for several subsequent decades, original cost was not the employed measure of value. In short, there is no regulatory precedent for instant original cost ratemaking. History teaches the reasons for the evolution toward original cost rate making are the fact that the books and records of such companies didn't permit ready identification of such original cost and that an instant adoption of original cost ratemaking would have been confiscatory.

2. The present book values of cable companies reflect the product of arm's length acquisition of systems. Debt and equity were issued in conjunction with these acquisitions. To ignore the investment made in other than tangible assets is tantamount to confiscation without due process. About 90 percent of all the original builder cable systems have been acquired by the present owner.
3. Given that cable television's tangible assets have a useful life of approximately 10 years, the transition period for a cable system's tangible assets should be no longer than 10 years.
4. Intangible assets could also be amortized over the same 10-year period to avoid confiscation and to permit maintenance of financial integrity.

As a result, we recommend adoption of book cost as the starting point of rate base determination including tangible and intangible assets. The transition to original cost ratemaking would take place over a 10-year period.

With respect to rate of return, we have recommended a specific workable approach to determine revenue requirements. However, in the final analysis, the end result must be tested to insure the maintenance of financial integrity and the ability to attract capital on reasonable terms in competition with similar risk enterprises. If the rate of return is too low, even when applied to an appropriate rate base, the dollars of return will be too low. If the rate base is too low, even if the proper rate of return was applied, the dollars of return will be too low. Accordingly, testing the outcome of both the rate base and the rate of return conclusions should be part and parcel of the regulatory process. Such testing could take the form of the ability to continue to service existing outstanding capital including debt capital, the ability to attract additional capital as needed on reasonable terms, and hence the ultimate duty of a regulator would be fulfilled; namely, to insure service that is deemed to be in the public interest.

## LIST OF ATTACHMENTS

- Attachment 1: Illustration of an Arms Length Sale of a Hypothetical Cable System and the Valuation of Underlying Tangible and Intangible Asset Values
- Attachment 2: Cable Television Industry Financial Statistics
- Attachment 3: Financial Statistics for a Sample of 70 S&P Industrials with Risk Characteristics Similar to the Cable Television Industry
- Attachment 4: Financial Statistics for the Value Line Telecommunications Companies:  
1) All Value Line Telecommunications Companies  
2) The Seven RBHCs and the Five Major Independents
- Attachment 5: Financial Statistics for the Value Line Broadcast Companies
- Attachment 6: Financial Statistics for the Value Line Recreation Industry Companies  
1) All Value Line Recreation Companies  
2) All Value Line Recreation Companies  
Excluding Time-Warner and Gaylord  
3) Value Line Home and Local Leisure and Vacation/Resort  
Companies Excluding Time-Warner and Gaylord  
4) Value Line Home and Local Leisure Companies  
Excluding Time-Warner and Gaylord
- Attachment 7: Summary of Key Financial Statistics for the Groups

**ATTACHMENT 1**

**ILLUSTRATION OF AN ARMS LENGTH SALE OF A HYPOTHETICAL  
CABLE SYSTEM AND THE VALUATION OF UNDERLYING  
TANGIBLE AND INTANGIBLE ASSET VALUES**

# ILLUSTRATION OF THE SALE OF A HYPOTHETICAL CABLE SYSTEM

<b>ASSUMPTIONS:</b>	
Houses Passed in Year 5:	2,000
Annual Growth of Houses Passed:	2.0%
Loss of Old Subscribers Each Year After Year 5 (%):	10.0%
Rate of Inflation (%):	4.0%
Monthly Rates in Year 5:	
Tier 1:	\$10.00
Tier 2:	\$11.00
Premium and Pay-for-View:	\$16.00
Real Increase in Monthly Rates:	
Tier 2:	\$0.45
Premium and Pay-for-View:	\$0.45
Monthly Other Revenues per Subscriber:	\$3.00
Costs in Year 5:	
Fixed:	\$120,000
Per Subscriber:	\$90
Penetration	
Overall (%):	
Year 1:	30.0%
Year 5:	72.5%
Tier 2 (%):	90.0%
Premium and Pay-for-View (%):	
Year 1:	40.0%
Year 5:	60.0%
Depreciation Rate (%):	10.0%
Income Tax Rate (%):	40.0%
Long-Term Debt:	
Share (%):	50.0%
Cost Rate (%):	8.0%
Total Plant in Year 1:	1,140,000

Year	Houses Passed	-----Subscribers-----			-----Penetration-----		-----Monthly Rates-----			Monthly Other Revenue per Subscriber	-----Channels Offered-----		Premium and Pay-for-View	
		Old	New	Total	Overall	Premium and Pay-for-View	Tier 1	Tier 2	Premium and Pay-for-View		Tier 1	Tier 2		
Original Developer														
1	1,848		554	0	554	30.0%	40.0%	\$8.55	\$9.40	\$13.68	\$2.56	15	15	10
2	1,885		833	0	833	44.2%	46.7%	\$8.89	\$9.78	\$14.22	\$2.67	15	15	10
3	1,923	1,122		0	1,122	58.3%	53.3%	\$9.25	\$10.17	\$14.79	\$2.77	15	15	10
4	1,961	1,422		0	1,422	72.5%	60.0%	\$9.62	\$10.58	\$15.38	\$2.88	15	15	10
5	2,000	1,450		0	1,450	72.5%	60.0%	\$10.00	\$11.00	\$16.00	\$3.00	15	15	10
New Owner														
6	2,040	1,450		29	1,479	72.5%	60.0%	\$10.40	\$11.91	\$17.11	\$3.12	15	18	11
7	2,081	1,305		204	1,509	72.5%	60.0%	\$10.82	\$12.87	\$18.28	\$3.24	15	21	12
8	2,123	1,160		379	1,539	72.5%	60.0%	\$11.25	\$13.89	\$19.52	\$3.37	15	24	13
9	2,165	1,015		555	1,570	72.5%	60.0%	\$11.70	\$14.97	\$20.82	\$3.51	15	27	14
10	2,208	870		731	1,601	72.5%	60.0%	\$12.17	\$16.12	\$22.20	\$3.65	15	30	15
11	2,252	725		908	1,633	72.5%	60.0%	\$12.65	\$17.33	\$23.66	\$3.80	15	30	15
12	2,297	580	1,085		1,665	72.5%	60.0%	\$13.16	\$18.62	\$25.20	\$3.95	15	30	15
13	2,343	435	1,264		1,699	72.5%	60.0%	\$13.69	\$19.98	\$26.82	\$4.11	15	30	15
14	2,390	290	1,443		1,733	72.5%	60.0%	\$14.23	\$21.42	\$28.54	\$4.27	15	30	15
15	2,438	145	1,623		1,768	72.5%	60.0%	\$14.80	\$22.94	\$30.35	\$4.44	15	30	15
16	2,487	0	1,803		1,803	72.5%	60.0%	\$15.39	\$23.86	\$31.56	\$4.62	15	30	15
17	2,537	0	1,839		1,839	72.5%	60.0%	\$16.01	\$24.82	\$32.82	\$4.80	15	30	15
18	2,588	0	1,876		1,876	72.5%	60.0%	\$16.65	\$25.81	\$34.13	\$5.00	15	30	15
19	2,640	0	1,914		1,914	72.5%	60.0%	\$17.32	\$26.84	\$35.50	\$5.20	15	30	15
20	2,693	0	1,952		1,952	72.5%	60.0%	\$18.01	\$27.91	\$36.92	\$5.40	15	30	15

Year	-----Annual Revenue From-----			-----Expenses-----		Total Operating Expenses	Operating Profit / (Loss)
	Old Subscribers	New Subscribers	Total Subscribers	Fixed	Per Subscriber		
Original Developer							
1	\$166,624	\$0	\$166,624	\$102,577	\$77	\$145,197	\$21,427
2	\$269,702	\$0	\$269,702	\$106,680	\$80	\$173,328	\$96,374
3	\$391,202	\$0	\$391,202	\$110,947	\$83	\$204,308	\$186,894
4	\$533,147	\$0	\$533,147	\$115,385	\$87	\$238,442	\$294,705
5	\$565,500	\$0	\$565,500	\$120,000	\$90	\$250,500	\$315,000
New Owner							
6	\$600,335	\$12,007	\$612,342	\$124,800	\$94	\$263,234	\$349,108
7	\$573,346	\$89,627	\$662,973	\$129,792	\$97	\$276,684	\$386,289
8	\$540,596	\$176,626	\$717,222	\$134,984	\$101	\$290,789	\$426,433
9	\$501,560	\$274,252	\$775,812	\$140,383	\$105	\$305,684	\$470,128
10	\$455,679	\$382,875	\$838,554	\$145,998	\$109	\$321,306	\$517,248
11	\$402,352	\$503,912	\$906,264	\$151,838	\$114	\$337,802	\$568,462
12	\$340,940	\$637,792	\$978,732	\$157,912	\$118	\$355,104	\$623,628
13	\$270,755	\$786,745	\$1,057,500	\$164,228	\$123	\$373,496	\$684,004
14	\$191,067	\$950,722	\$1,141,789	\$170,797	\$128	\$392,791	\$748,998
15	\$101,093	\$1,131,548	\$1,232,641	\$177,629	\$133	\$413,166	\$819,475
16	\$0	\$1,307,324	\$1,307,324	\$184,734	\$139	\$434,542	\$872,782
17	\$0	\$1,386,764	\$1,386,764	\$192,124	\$144	\$457,111	\$929,653
18	\$0	\$1,471,252	\$1,471,252	\$199,809	\$150	\$480,940	\$990,312
19	\$0	\$1,561,096	\$1,561,096	\$207,801	\$156	\$506,100	\$1,054,996
20	\$0	\$1,655,773	\$1,655,773	\$216,113	\$162	\$532,503	\$1,123,270

	Depreciation & Amortization	Amortization of Intangibles	Interest Expense	Total Non- Operating Expenses	Pre-Tax Profit /(Loss)	Income Taxes	Net Profit /(Loss)
Original Developer							
1	\$114,000	0	\$41,040	\$155,040	(\$133,613)	(\$53,445)	(\$80,168)
2	\$114,000	0	\$36,936	\$150,936	(\$54,562)	(\$21,825)	(\$32,737)
3	\$114,000	0	\$33,242	\$147,242	\$39,651	\$15,860	\$23,791
4	\$114,000	0	\$29,918	\$143,918	\$150,787	\$60,315	\$90,472
5	\$114,000	0	\$26,926	\$140,926	\$174,074	\$69,629	\$104,444
New Owner							
6	\$119,306	\$98,842	\$61,727	\$279,876	\$69,232	\$27,693	\$41,539
7	\$125,625	\$98,842	\$57,434	\$281,901	\$104,388	\$41,755	\$62,633
8	\$132,996	\$98,842	\$53,553	\$285,392	\$141,042	\$56,417	\$84,625
9	\$141,463	\$98,842	\$50,060	\$290,364	\$179,764	\$71,905	\$107,858
10	\$151,068	\$98,842	\$46,930	\$296,840	\$220,409	\$88,163	\$132,245
11	\$151,068	\$98,842	\$40,260	\$290,170	\$278,292	\$111,317	\$166,975
12	\$151,068	\$98,842	\$33,862	\$283,772	\$339,856	\$135,943	\$203,914
13	\$151,068	\$98,842	\$27,708	\$277,618	\$406,386	\$162,554	\$243,832
14	\$151,068	\$98,842	\$21,774	\$271,684	\$477,314	\$190,925	\$286,388
15	\$151,068	\$98,842	\$16,039	\$265,948	\$553,527	\$221,411	\$332,116
16	\$158,922	\$0	\$17,263	\$176,185	\$696,598	\$278,639	\$417,959
17	\$168,275	\$0	\$18,903	\$187,179	\$742,475	\$296,990	\$445,485
18	\$179,187	\$0	\$20,941	\$200,128	\$790,184	\$316,074	\$474,111
19	\$191,719	\$0	\$23,359	\$215,078	\$839,919	\$335,967	\$503,951
20	\$205,936	\$0	\$26,141	\$232,078	\$891,192	\$356,477	\$534,715

	Total Plant	Additional Investment	Accumulated Depreciation	Net Tangible Plant	Unamortized Intangibles	Net Plant Including Intangibles
Original Developer						
1	\$1,140,000	\$0	\$114,000	\$1,026,000	\$0	\$1,026,000
2	\$1,140,000	\$0	\$216,600	\$923,400	\$0	\$923,400
3	\$1,140,000	\$0	\$308,940	\$831,060	\$0	\$831,060
4	\$1,140,000	\$0	\$392,046	\$747,954	\$0	\$747,954
5	\$1,140,000	\$0	\$466,841	\$673,159	\$0	\$673,159
New Owner						
6	\$1,193,064	\$53,064	\$539,464	\$653,600	\$889,578	\$1,543,178
7	\$1,256,250	\$63,186	\$611,142	\$645,108	\$790,736	\$1,435,844
8	\$1,329,964	\$73,714	\$683,024	\$646,940	\$691,894	\$1,338,834
9	\$1,414,626	\$84,662	\$756,185	\$658,442	\$593,052	\$1,251,494
10	\$1,510,675	\$96,049	\$831,634	\$679,041	\$494,210	\$1,173,252
11	\$1,510,675	\$0	\$899,538	\$611,137	\$395,368	\$1,006,505
12	\$1,510,675	\$0	\$960,652	\$550,024	\$296,526	\$846,550
13	\$1,510,675	\$0	\$1,015,654	\$495,021	\$197,684	\$692,705
14	\$1,510,675	\$0	\$1,065,156	\$445,519	\$98,842	\$544,361
15	\$1,510,675	\$0	\$1,109,708	\$400,967	\$0	\$400,967
16	\$1,589,223	\$78,547	\$1,157,659	\$431,563	\$0	\$431,563
17	\$1,682,754	\$93,531	\$1,210,169	\$472,585	\$0	\$472,585
18	\$1,791,868	\$109,114	\$1,268,339	\$523,529	\$0	\$523,529
19	\$1,917,189	\$125,321	\$1,333,224	\$583,965	\$0	\$583,965
20	\$2,059,365	\$142,176	\$1,405,838	\$653,527	\$0	\$653,527

**CALCULATION OF DESIRED PRICES:  
FROM DEVELOPER'S POINT OF VIEW**

Year	Cash Flow Desired	Actual
Initial Investment	(\$570,000)	(\$570,000)
1	(\$80,168)	(\$80,168)
2	(\$32,737)	(\$32,737)
3	\$23,791	\$23,791
4	\$90,472	\$90,472
5	\$104,444	\$104,444
Price	\$1,340,000	\$1,325,000
Internal Rate of Return	16.0%	15.9%

**FROM BUYER'S POINT OF VIEW**

Year	Cash Flow Desired	Actual
Initial Investment	(\$823,290)	(\$830,790)
6	\$16,231	\$15,007
7	\$32,228	\$31,040
8	\$48,920	\$47,768
9	\$66,643	\$65,527
10	\$85,301	\$84,221
11	\$168,019	\$166,975
12	\$204,922	\$203,914
13	\$244,804	\$243,832
14	\$287,324	\$286,388
15	\$333,016	\$332,116
16	\$378,685	\$378,685
17	\$398,719	\$398,719
18	\$419,553	\$419,553
19	\$441,291	\$441,291
20	\$463,628	\$463,628
Price	\$1,310,000	\$1,325,000
Internal Rate of Return	16.0%	15.8%
Agreed Upon Price:		\$1,325,000
0		

Actual Sales Price	\$1,325,000
Debt Assumption (50% Rate Base, Yr. 5)	\$336,579
New Owner Basis	\$1,661,579
Less: Net Plant At Acquisition (Yr. 5)	\$673,159
Acquisition Adjustment	\$988,420
Annual Amortization (10 Years)	\$98,842

# **VALUATION OF THE TANGIBLE AND INTANGIBLE ASSETS OF THE SOLD CABLE SYSTEM**

## **ASSUMPTIONS:**

Houses Passed Prior to Purchase:	2,000
Annual Growth of Houses Passed:	2.0%
Loss of Old Subscribers Each Year (%):	10.0%
Rate of Inflation (%):	4.0%
Monthly Rates Prior to Purchase:	
Tier 1:	\$10.00
Tier 2:	\$11.00
Premium and Pay-for-View:	\$16.00
Monthly Other Revenues per Subscriber:	\$3.00
Discount Rates:	
Revenue from Tangibles:	12.33%
Revenue from Old Subscribers:	17.33%
Revenue from New Subscribers:	22.33%
Cost as Percent of Revenues:	50.0%
Penetration	
Overall (%):	
Year Prior to Purchase:	50.0%
Year 3:	72.5%
Tier 1 (%):	100.0%
Tier 2 (%):	90.0%
Premium and Pay-for-View (%):	
Year Prior to Purchase:	40.0%
Year 3:	60.0%

## **RESULTS:**

Present Discounted Values:	
Revenue from Old Subscribers (Subscriber List Value):	\$2,154,646
Revenue from New Subscribers (Franchise Value):	\$1,769,395
-----	
Total Revenues Due to Tangibles, Subscriber List, and Franchise Value:	\$3,924,041
Less Revenue from Tangible Plant:	\$358,323
-----	
Revenues from Subscriber List and Franchise Value:	\$3,565,718
Net Operating Revenues from Tangibles	\$179,162
Net Operating Revenues from Subscriber List and Franchise Value:	\$1,962,021
After-Tax Value of Tangibles:	\$107,497
After-Tax Value of Subscriber List and Franchise Value:	\$1,177,212
After-Tax Value of Subscriber List:	\$646,394
After-Tax Value of Franchise Value:	\$530,819
Other Going Concern Value:	\$376,870
Total System Cost:	\$1,661,579

## **CALCULATIONS:**

Year	Houses Passed	-----Subscribers-----			---Penetration---		-----Monthly Rates-----			Monthly Other Revenue per Subscriber	-----Annual Revenue From-----			Net Tangible Plant	Revenue from Tangible Plant
		Old	New	Total	Overall	Premium and Pay- for-View	Tier 1	Tier 2	Premium and Pay- for-View		Old Subscribers	New Subscribers	Total Subscribers		
Prior to Purchase	2,000	1,450	0	1,450	72.5%	60.0%	\$10.00	\$11.00	\$16.00	\$3.00	\$565,500	\$0	\$565,500	\$673,159	
6	2,040	1,450	29	1,479	72.5%	60.0%	\$10.40	\$11.96	\$17.16	\$3.12	\$601,692	\$12,034	\$613,726	\$605,843	\$83,000
7	2,081	1,305	204	1,509	72.5%	60.0%	\$10.82	\$12.98	\$18.39	\$3.24	\$575,887	\$90,024	\$665,911	\$545,258	\$74,700
8	2,123	1,160	379	1,539	72.5%	60.0%	\$11.25	\$14.06	\$19.69	\$3.37	\$544,119	\$177,777	\$721,896	\$490,733	\$67,230
9	2,165	1,015	555	1,570	72.5%	60.0%	\$11.70	\$15.21	\$21.06	\$3.51	\$505,835	\$276,590	\$782,425	\$441,659	\$60,507
10	2,208	870	731	1,601	72.5%	60.0%	\$12.17	\$16.42	\$22.51	\$3.65	\$460,442	\$386,877	\$847,319	\$397,493	\$54,457
11	2,252	725	908	1,633	72.5%	60.0%	\$12.65	\$17.71	\$24.04	\$3.80	\$407,306	\$510,116	\$917,422	\$357,744	\$49,011
12	2,297	580	1,085	1,665	72.5%	60.0%	\$13.16	\$19.08	\$25.66	\$3.95	\$345,748	\$646,787	\$992,535	\$321,970	\$44,110
13	2,343	435	1,264	1,699	72.5%	60.0%	\$13.69	\$20.53	\$27.37	\$4.11	\$275,041	\$799,201	\$1,074,242	\$289,773	\$39,699
14	2,390	290	1,443	1,733	72.5%	60.0%	\$14.23	\$22.06	\$29.18	\$4.27	\$194,410	\$967,358	\$1,161,768	\$260,795	\$35,729
15	2,438	145	1,623	1,768	72.5%	60.0%	\$14.80	\$23.68	\$31.09	\$4.44	\$103,025	\$1,153,170	\$1,256,195	\$234,716	\$32,156
16	2,487	0	1,803	1,803	72.5%	60.0%	\$15.39	\$24.63	\$32.33	\$4.62	\$0	\$1,332,305	\$1,332,305	\$211,244	\$28,940
17	2,537	0	1,839	1,839	72.5%	60.0%	\$16.01	\$25.62	\$33.62	\$4.80	\$0	\$1,413,263	\$1,413,263	\$190,120	\$26,046
18	2,588	0	1,876	1,876	72.5%	60.0%	\$16.65	\$26.64	\$34.97	\$5.00	\$0	\$1,499,365	\$1,499,365	\$171,108	\$23,442
19	2,640	0	1,914	1,914	72.5%	60.0%	\$17.32	\$27.71	\$36.37	\$5.20	\$0	\$1,590,926	\$1,590,926	\$153,997	\$21,098
20	2,693	0	1,952	1,952	72.5%	60.0%	\$18.01	\$28.82	\$37.82	\$5.40	\$0	\$1,687,412	\$1,687,412	\$138,597	\$18,988

**ATTACHMENT 2**

**CABLE TELEVISION INDUSTRY  
FINANCIAL STATISTICS**

**VOLATILITY MEASURES FOR THE FIVE VALUE LINE  
CABLE TELEVISION COMPANIES**

<u>COMPANY</u>	<u>ADJUSTED BETA</u>	<u>UNADJ. BETA</u>	<u>RESIDUAL STD DEV</u>
CABLEVISION SYS. 'A'	1.35	1.46	5.0447
COMCAST CORP.	1.55	1.81	4.3201
MULTIMEDIA, INC.	0.90	0.79	3.3888
TELE-COMMUNIC. 'A'	1.55	1.82	3.7747
VIACOM INC. 'A'	1.15	1.17	4.2178
Average	1.30	1.41	4.1492
Beta Range (+/- 3 Standard Deviations)	0.98	1.84	
Residual Standard Deviation Range (+/- 3 Standard Deviations)	3.6033	4.6951	

**AVERAGE DEBT COST AND PRE-TAX OVERALL RATE OF RETURN  
FOR THE FIVE VALUE LINE CABLE TELEVISION COMPANIES**

	<u>Cost of Debt</u>	<u>Rate of Return</u>
1992	8.5%	10.9%
1991	10.6	12.4
1990	11.3	13.4
1989	12.6	18.6
1988	11.9	14.9
Average	11.0%	14.0%

**FIVE-YEAR FORECASTED PRETAX OVERALL RATE OF RETURN FOR  
THE FIVE VALUE LINE CABLE TV COMPANIES(1)**

	<u>Net Profit</u>	<u>Income Tax Rate</u>	<u>L-T Debt</u>	<u>Net Worth</u>	<u>Percent Earned Total Capital</u>	<u>Pre-Tax Net Profit(2)</u>	<u>Interest Expense(3)</u>	<u>Forecasted Pretax Overall Rate of Return(4)</u>
CABLEVISION SYS. 'A'	(\$45)	0.0%	\$1,500	(\$1,710)	0.0%	(\$45)	\$45	NMF
COMCAST CORP.	100	36.0	3,000	(930)	12.0	156	148	14.7%
MULTIMEDIA, INC.	130	40.0	600	215	19.5	217	29	30.2%
TELE-COMMUNIC. 'A'	1,010	40.0	4,000	4,715	14.0	1,683	210	21.7%
VIACOM INC. 'A'	360	40.0	1,400	2,140	12.0	600	65	18.8%
Average								21.4%

- Notes: (1) The Value Line Cable TV Companies are a subset of the Value Line Investment Survey Broadcasting/Cable TV Industry  
(2) Pretax Net Profit equals Net Profit divided by one, minus Income Tax Rate ( $NP/(1-T)$ ).  
(3) Interest Expense equals Percent Earned Total Capital times the sum of L-T Debt and Net Worth minus Net Profit ( $\%TC \times (LTD+NW) - NP$ ).  
(4) Forecasted Pretax Overall Rate of Return equals the sum of Pretax Net Profit, plus Interest Expense divided by the sum of L-T Debt and Net Worth ( $(PTNP+IE)/(LTD+NW)$ ).

**ATTACHMENT 3**

**FINANCIAL STATISTICS FOR A SAMPLE OF 70 S&P INDUSTRIALS  
WITH RISK CHARACTERISTICS SIMILAR  
TO THE CABLE TELEVISION INDUSTRY**

**HISTORICAL CAPITAL STRUCTURE, COST OF DEBT, RATE OF RETURN  
ON COMMON EQUITY AND PRETAX OVERALL RATE OF RETURN FOR THE  
GROUP OF 70 INDUSTRIAL COMPANIES (1)**

	<u>1992</u>	<u>1991</u>	<u>1990</u>	<u>1989</u>	<u>1988</u>	<u>5 YEAR AVERAGE</u>
<b>CAPITAL STRUCTURE RATIOS</b>						
<b>BASED ON TOTAL PERMANENT CAPITAL:</b>						
LONG-TERM DEBT	34.0%	34.5%	32.3%	32.9%	32.8%	33.3%
PREFERRED STOCK	1.9	1.9	2.6	2.7	2.7	2.4
COMMON EQUITY	64.1	63.6	65.1	64.4	64.5	64.3
	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>
	=====	=====	=====	=====	=====	=====
<b>BASED ON TOTAL CAPITAL:</b>						
TOTAL DEBT, INCLUDING SHORT TERM	36.5%	37.8%	35.5%	36.2%	35.5%	36.3%
PREFERRED STOCK	1.9	1.8	2.5	2.5	2.6	2.3
COMMON EQUITY	61.6	60.4	62.0	61.3	61.9	61.4
	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>
	=====	=====	=====	=====	=====	=====
<b>COST OF DEBT</b>	9.5%	10.5%	11.5%	11.4%	10.8%	10.7%
<b>RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY</b>	9.5%	9.3%	13.4%	18.4%	21.8%	14.5%
<b>PRETAX OVERALL RATE OF RETURN</b>	15.2%	15.2%	19.0%	21.6%	24.8%	19.2%

NOTE: (1) THE GROUP OF 70 INDUSTRIAL COMPANIES IS A SUBSET OF THE S&P INDUSTRIALS COMPANIES WITH AN UNADJUSTED BETA EQUAL TO OR GREATER THAN 0.98 AND EQUAL TO OR LESS THAN 1.84 WITH RESIDUAL STANDARD DEVIATION EQUAL TO OR GREATER THAN .6033 AND EQUAL TO OR LESS THAN 4.6951 HAVE BEEN INCLUDED IN THIS ANALYSIS.

SOURCE OF INFORMATION: STANDARD & POOR'S COMPUSTAT SERVICES, INC., COMPUSTAT II